

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
(NORFOLK DIVISION)**

VIR2US, INC.)	
)	
Plaintiff and Counterclaim Defendant,)	C.A. No. 2:15-cv-162-HCM-LRL
)	
v.)	DEFENDANTS INVINCEA, INC. AND
)	INVINCEA LABS, LLC’S OPENING
INVINCEA, INC., and)	CLAIM CONSTRUCTION BRIEF
INVINCEA LABS, LLC)	
)	
Defendants and Counterclaim Plaintiffs.)	

I. INTRODUCTION

Defendants and Counterclaim Plaintiffs Invincea, Inc. and Invincea Labs, LLC respectfully provide their proposed claim constructions for the disputed terms and phrases in the patents-in-suit. Invincea bases its proposed claim constructions on the intrinsic record of each patent, the ordinary and customary meaning of the terms and phrases to a person of ordinary skill in the art, and extrinsic evidence, including dictionary definitions and expert testimony.

Invincea’s well-grounded constructions yield simple explanations for the disputed terms and phrases. With regard to several disputed terms of the ‘541 and ‘598 patents, although the plain and ordinary meanings pertain to hardware components, Plaintiff seeks to expand the scope of these terms beyond their plain and ordinary meaning to cover software equivalents. Such expansion is not warranted by either the intrinsic or the extrinsic record. Accordingly, the Court should adopt Invincea’s proposed constructions for the reasons set forth below.

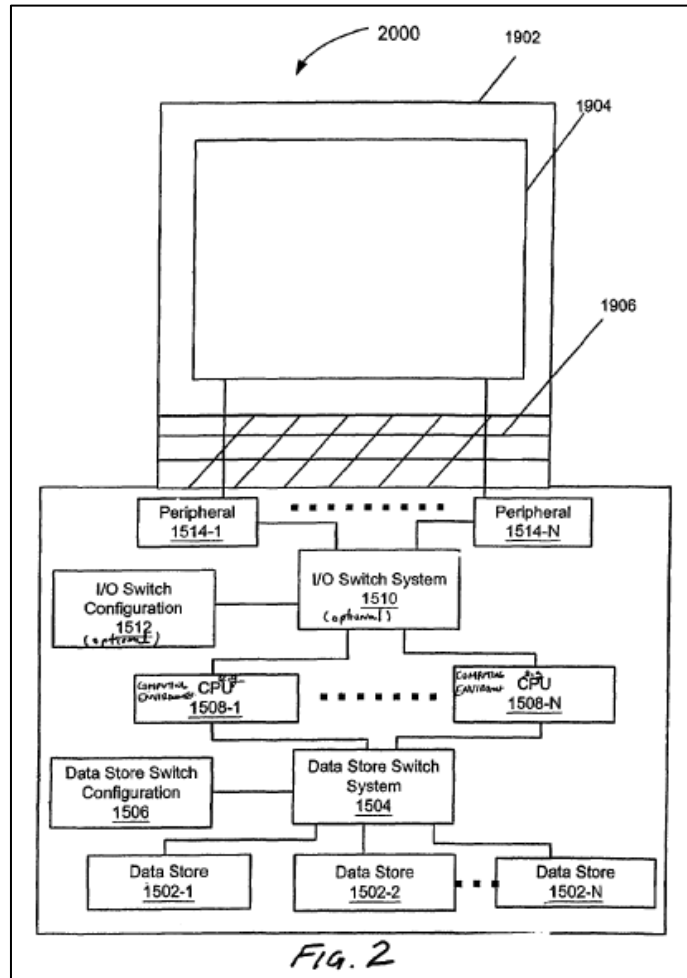
II. BACKGROUND OF THE PATENTS

A. U.S. Patent No. 7,392,541

The ‘541 patent (attached as Exhibit A) issued on June 24, 2008 and is entitled “Computer System Architecture and Method Providing Operating-System Independent Virus-, Hacker-, and Cyber-Terror-Immune Processing Environments.” The patent is directed to systems and methods for immunizing a computing system from viruses and other malicious software.

‘541 patent col. 4:56-58. This task is generally accomplished by creating alternative “computing environments” that are isolated from, or have restricted access to, the rest of the system. *Id.* at 5:3-11. Thus, if a particular computing environment is corrupted in some way, the corruption is unable to spread to the remainder of the system. *Id.* at 7:18-20.

Figure 2 of the ‘541 patent (reproduced here) provides a high-level illustration of the architecture and structures for implementing these systems and methods. As shown, the system can employ multiple computing environments (represented as 1508-1 ... 1508-N in Figure 2) at any given time, each of which is capable of performing processing activities which may result in corruption. *Id.* at 5:55-57; 6:20-30. The specification explains that each computing environment may consist of a central processing unit, a memory, and peripherals (e.g., mouse, keyboard, monitor). *Id.* at 5:59-63. As shown in Figure 2, the computing environment’s CPU is coupled to a data store via a data store switch system. *Id.* at 17:10-16; 11:20-24.



Going into greater detail, the specification explains that the coupling and decoupling of these components is controlled by a “controlling computing environment” (as distinguished from the other “user computing environments”). *Id.* at 6:46-49. The control computing environment is responsible for configuring the data store switch system to connect the appropriate devices. *Id.* The specification further explains that the control computing environment also controls

access to a “protected data store,” to isolate it from the other computing environments so that potentially malicious code cannot corrupt its files. *Id.* at 6:59-7:21; 9:1-6.

Thus, operations such as accessing and saving files can be achieved safely in the computing system. For example, a data store switch system may be configured to permit a user computing environment to access a file on a data store. *Id.* at 24:49-54. The file is copied from the protected data store to the isolated user computing environment and, after terminating the connection with the data store through the appropriate switch, the file may be opened or executed by the CPU of the user computing environment. *Id.* at 41:17-23. If that the file is contaminated (for example, with a virus that executes while within the user computing environment), its harmful effect is limited to the isolated user computing environment. *Id.* at 42:49-54. Further, if a file in the data store associated with a user environment becomes corrupted, the control computing environment decouples the CPU and instructs the data store switch system to connect the protected data store to enable the copying of the clean file from the protected data to overwrite the corrupted file in the infected data store. *Id.* at 10:22-56.

B. U.S. Patent No. 7,536,598

The ‘598 patent (attached as Exhibit B) issued on May 19, 2009 and is entitled “Computer System Capable of Supporting a Plurality of Independent Computing Environments.” The ‘598 patent and ‘541 patent are related patents, both claiming priority to the same provisional Patent Application No. 60/393,719. The ‘598 patent is directed to a self-repairing computer that utilizes two independent “boot disc drives”—components that provide instructions to a computer upon startup. ‘598 patent at Abstract. The computer can be initially configured to boot from the first boot disk drive in a normal mode of operation. *Id.* at 6:54-62. When there is an indication that the first drive is corrupted, the computer switches to the second boot disk drive. *Id.* at 14:39-42. The second boot disk drive may then be used to repair the first boot disk drive. *Id.* at 7:49-60. In this manner, the ‘598 patent also relates to switching between data stores.

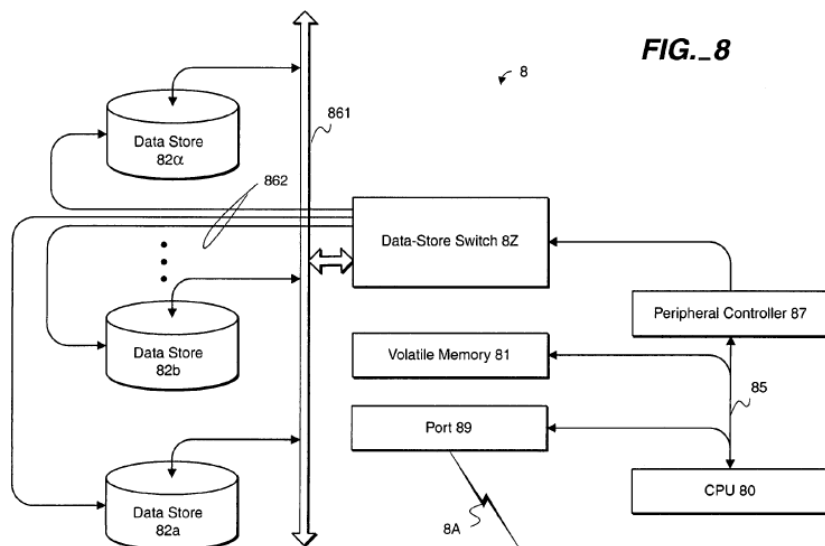


FIG. 8 of the '598 patent illustrates a computer including a CPU, a peripheral controller, a data-store switch, and multiple data stores 82a, 82b, ... 82α. The peripheral controller communicates with the CPU and with the data-store switch. *Id.* at 14:16-19. The data-store switch in turn couples with one of the data stores. *Id.* at 14:21-23. In this manner, only one data store can access the CPU (via the data-store switch) at any given time. *Id.* at 15:66-67.

Each data store can include a bootable operating system. *Id.* at 16:9-12. During operation, the computer may operate in different states. *Id.* at 14:31-32, 15:59-60. In a first state, the data-store switch enables the CPU to communicate with the first data store 82a. *Id.* at 14:32-34. In the second state, the data store switch enables the CPU to communicate with the second data store 82b, and so on. *Id.* at 14:34-38. A diagnostic program may execute periodically on the currently connected data store to assess whether the data store is corrupted (i.e., assess its health). *Id.* at 36:9-46. The diagnosis of corruption or other failure prompts the system to switch from one state to another, resulting in the CPU being decoupled from the corrupted data store and coupled to a data store that is not corrupted. *Id.* at 14:38-44. The failed data store may then be removed or repaired, for example by replacing the infected files with an uninfected original. *Id.* The '598 patent teaches that, in this manner, the system provides resistance against infection and hacking by malicious users. *Id.* at 14:45-48.

C. U.S. Patent No. 8,839,422

The '422 patent (attached as Exhibit C) issued on September 16, 2014 and is entitled "Virtual Browsing Environment." The patent is directed to isolating the processing of potentially malicious software within a virtual environment to prevent malicious activity from affecting the remainder of the system. '422 patent col. 13:34-52. A virtual environment is a simulated version of a physical environment, such as a device or a resource. As an example, a single physical computer can run multiple virtual computers, each virtual computer appearing to a program running within it to be a physical computer.

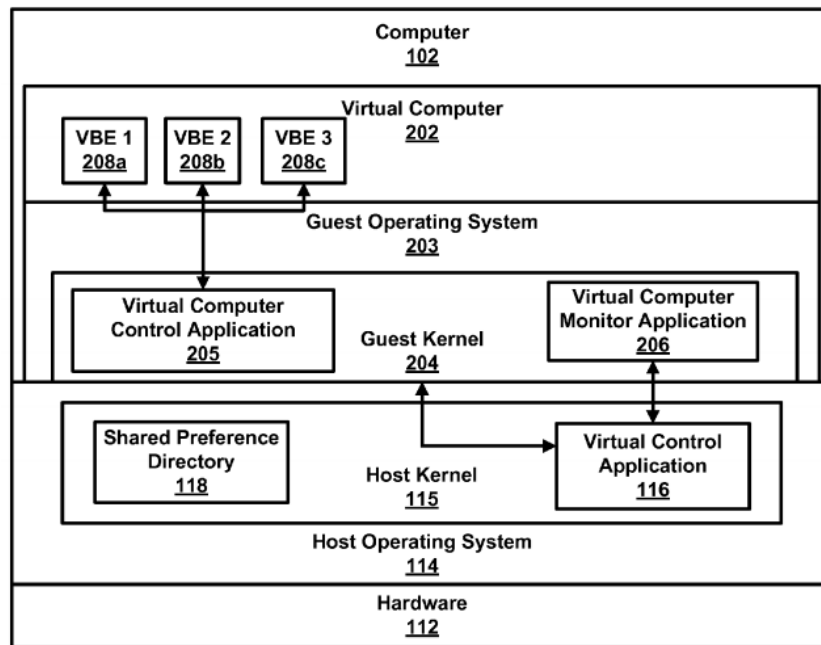


FIG. 2

FIG. 2 in the '422 patent provides an illustrative embodiment of the invention. First, the physical computer's (i.e., the host) operating system begins by initiating a virtual control application ("VCA"), which creates a virtual computer. *Id.* at 3:39-56. Alternatively, the VCA may create a virtual environment, often referred to as "lightweight" virtualization, though this discussion focuses only on the virtual computer for brevity. *Id.* at 4:37-52. The virtual computer can act much like a normal computer (e.g., have its own guest operating system, etc.), but is isolated within the computer. *Id.* Much like a normal computer, applications, such as a browser,

can be launched within the virtual computer, which results in creation of one or more virtual browsing environments (“VBEs”) within the virtual computer. *Id.* at 8:16-21. The VBE is isolated from the rest of the system. *Id.* at 13:50-53.

During operation, the VBE can run, for example, a web browser, and the processing can be monitored for potential malicious activity. *Id.* at 13:1-37. In one embodiment, the virtual computer can be configured with a set of “normal” interactions between the browser and an operating system. *Id.* at 13:42-49. If an operation departs from these “normal” interactions, the system will identify the operation as potential malicious activity. *Id.* at 13:46-49. Once potential malicious activity is detected, the VBE can be terminated. *Id.* at 14:1-6. After termination, the system can collect information about the potential malicious activity and send the information to a collection computer for analytics. *Id.* at 14:42-46. The ‘422 patent states that, in this manner, the collected information can help the user identify and understand malicious attempts. *Id.* at 15:14-18.

III. LEGAL STANDARDS

A. General Claim Construction Principles

It is a “bedrock principle” of patent law that “the claims . . . define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (quotations omitted). The court construes claim terms as a matter of law. *Markman v. Westview Instruments*, 52 F.3d 967, 979 (Fed. Cir. 1995) (*en banc*), *aff’d*, 517 U.S. 370 (1996). When construing the claims, the court must give them the meaning they would have to one of ordinary skill in the relevant art as of the patent’s effective filing date, and in view of the patent specification. *Phillips*, 415 F.3d at 1312-13.

In construing patent claims, “the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification [including the Figures] and, if in evidence, the prosecution history.” *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1373 (Fed. Cir. 2008) (*quoting Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Indeed, the claims cannot be read in a vacuum, but instead must be read “in

view of the specification, of which they are a part.” *Phillips*, 415 F.3d at 1313, 1315.

Although extrinsic evidence such as dictionaries and learned treatises can also be useful in claim construction, they are generally viewed as less reliable than the patent and its prosecution history in determining what claim terms mean. *Phillips*, 415 F.3d at 1317-18. The court may look to extrinsic evidence provided it does not vary or contradict the patentee’s usage of the claim term in the intrinsic record or how a person of ordinary skill in the art would understand the term at the time of the invention. *See Computer Docking Station*, 519 F.3d at 1373; *Phillips*, 415 F.3d at 1319.

B. Means-Plus-Function Claim Limitations

So-called “means-plus-function” claiming occurs when a claim term invokes 35 U.S.C. §112, ¶ 6 by claiming in functional, rather than structural, terms. *Williamson v. Citrix Onxline, LLC*, 792 F.3d 1339, 1347 (Fed. Cir. 2015) (*en banc*). Whether a claim term should be construed under § 112, ¶ 6 is a question of law. *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004). The words “means for” are not required to trigger the statute’s applicability. *See Mas-Hamilton Grp. v. LaGard, Inc.*, 156 F.3d 1206, 1214 (Fed. Cir. 1998). Rather, the absence of the words “means for” raises a rebuttable presumption that § 112, ¶ 6 does not apply, but the presumption may be overcome where the claim term does not “recite sufficiently definite structure.” *MIT v. Abacus Software*, 462 F.3d 1344, 1353 (Fed. Cir. 2006). Even where some structure is recited, the presumption may still be overcome if the claim term fails to “recite sufficiently definite structure” or else recites “function without reciting sufficient structure for performing that function.” *Williamson*, 792 F.3d at 1349 (citing *Watts*, 232 F.3d at 880). In short, the “presumption can collapse when a limitation lacking the term ‘means’ nonetheless relies on functional terms rather than structure or material to describe performance of the claimed function.” *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1372 (Fed. Cir. 2003).

Once the Court determines that § 112, ¶ 6 applies, it must employ a two-step process. *Williamson*, 792 F.3d at 1351. First, “[t]he court must identify the claimed function.” *Id.*

“Then, the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function.” *Id.* To qualify as “corresponding structure,” there must be a “clear link or association between the disclosed structure[] and the function recited.” *Medtronic, Inc. v. Adv. Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1312 (Fed. Cir. 2001); *B. Braun Med. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997) (“This duty to link or associate structure to function is the quid pro quo for the convenience of employing § 112, ¶ 6”).

C. Indefiniteness

Patent claims must particularly point out and distinctly claim the subject matter which the applicant regards as the invention. 35 U.S.C. § 112 (Pre-America Invents Act). Courts consider claims sufficiently definite if they “reasonably apprise those skilled in the art both of the utilization and scope of the invention.” *PPG Indus., Inc. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1562-63 (Fed. Cir. 1996) (quoting *Shatterproof Glass Corp. v. Libbey–Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985)). Indefinite claims are invalid. *Halliburton Energy Services, Inc. v. M-I LLC*, 514 F.3d 1244, 1249–50 (Fed. Cir. 2008). The Supreme Court recently held that “a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014).

If missing words or other typographical errors make it impossible to discern the scope of a claim limitation, the claim is indefinite and invalid under 35 U.S.C. § 112 ¶ 2. *See Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1348-49 (Fed. Cir. 2002). It is not the court’s function to rewrite claims to preserve their validity. *Id.* at 1349 (citing *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999)).

When a claim uses a term susceptible to subjective interpretations, “[s]ome objective standard must be provided in order to allow the public to determine the scope of the claimed invention.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350 (Fed. Cir. 2005), *abrogated on other grounds, Nautilus*, 134 S. Ct. 2120. For example, when a claim uses a term

of degree, the patent’s specification must provide “some standard for measuring that degree” to satisfy the definiteness requirement. *Id.* at 1351 (quoting *Seattle Box Co. v. Indus. Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984)).

IV. ARGUMENT

A. Terms of the ‘541 Patent

1. “processing logic device” / “microprocessor”

Claims	Claim Terms	Invincea’s Proposed Construction	Vir2us’s Proposed Construction
‘541 patent, claims 1-3, 7-13, 15-16	“processing logic device”	Hardware circuitry capable of executing electronic instructions	No construction necessary / plain and ordinary meaning
‘541 patent, claims 3, 8, 16	“microprocessor”	A general purpose processing logic device formed on one or more integrated circuits	No construction necessary / plain and ordinary meaning

Although Vir2us argues for *Markman* that these terms should be given their “plain and ordinary meaning,” Vir2us intends to argue to the *jury* that a “processing logic device” and “microprocessor” can be software. *See, e.g.*, Dkt. 42 at 1-2 & n.1; Dkt. 42-1 ¶¶ 9-10. That position does *not* comport with the plain and ordinary meaning of these terms, and has no support in the ‘541 patent.

The patent explains that the alleged invention applies to “any electrical, electronic, or optical **device** that has **logic circuitry** capable of ... perform[ing] an intended logical or arithmetic operations [sic].” Ex. A at 14:30-35 (emphasis added). The logic circuitry performs those operations by executing computer program instructions. *Id.* at 14:38-44. For example, the patent specifies that the processing logic 2381 is for **executing the set of instructions** for the intended isolated computing environment. *Id.* at 47:18-24 (emphasis added); *see also* Fig. 11 (showing that processing logic 2381 is a “PROCESSOR”). The patent repeatedly emphasizes that the “processing logic element” can be “for example, a processor, microprocessor, ASIC [application specific integrated circuit], controller, microcontroller, or other logic or processing **circuitry** means.” *Id.* at 50:39-44 (emphasis added) (citing Fig. 12, element 2404 which is

labeled “PROCESSOR (e.g. CPU)”. The patent is clear that these processing logic devices “provide the *physical* structure to create the computing (processing) environment.” *See, e.g., id.* at 16:15-18; 55:23-29. The patent never discloses these physical devices as software.

Invincea’s proposed constructions for these terms adopt the concepts explicitly stated in the patent. A “processing logic device” is hardware circuitry capable of executing electronic computer instructions, and a “microprocessor” is one specific type of “processing logic device.” *See also* ‘541 patent claim 3 (“wherein the processing logic device comprises a microprocessor”). The ‘541 patent does not define “microprocessor” but applies it consistently with well-known industry usage. *See* Ex. D, Microsoft Computer Dictionary at 339 (5th ed. 2002); Ex. E, Newton’s Telecom Dictionary at 536-37 (16th ed. 2000); Ex. F, Modern Dictionary of Electronics at 621-22 (6th ed. 1990). Once the jury understands the meaning of “processing logic device” and that a microprocessor is one type of processing logic device, Invincea believes that the jury can appropriately apply the term “microprocessor.” Nevertheless, the Court may still want to specify for the jury that a microprocessor is “a general purpose processing logic device formed on one or more integrated circuits.”

To avoid jury confusion that a “processing logic device” and “microprocessor” can be software, the Court should adopt Invincea’s constructions of these terms.

2. “data store” / “storage” / “data storage”

Claims	Claim Term	Invincea’s Proposed Construction	Vir2us’s Proposed Construction ¹
’541 claims 1-2, 6, 8, 10-13, 16 ’598 claim 66	“data store” “storage” “data storage”	A portion of a physical memory device (or devices) separate from other stores or storages	An area of memory to store data

The parties agree that these terms should all be construed the same way. This makes

¹ As indicated above, Vir2us has taken the position that no claim terms in the ‘541 and ‘598 patents need to be construed. All references to Vir2us’s proposed constructions refer to the responsive constructions Vir2us proposes in the alternative, should the Court find that the term needs to be construed.

sense since the patents are related and use these terms interchangeably. *See Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003) (stating it is presumed that the same claim term in related patents carries the same construed meaning).

The Vir2us patents are clear that the data stores are implemented with physical memory devices. For example, the '541 patent emphasizes:

Data store may be any combination of storage devices known in the art or to be developed, such as including but not limited to, rotating magnetic hard disk drives, rotating or non-rotating optical storage media, CDs, DVDs, holographic recordings, nanotechnology based storage, solid state memory (RAM, ROM, EEPROM, CMOS, and the like), molecular or atomic storage, chemical memory, as well as any other storage device or system.

'541 patent col. 17:16-23. The '598 patent similarly identifies those and other types of data stores. *See, e.g.*, '598 patent col. 10:1-25 (citing examples of data stores such as “a magnetic hard disk drive,” “a floppy disk drive, a magnetic tape drive, a CD-ROM, or other device”); col. 27:19-21 (“floppy, cd, dvd, or ... any other form of removable storage/memory”); col. 11:17-21 (“high-speed and moderate to high capacity storage devices such as ... solid state RAM memories”).

Data stores are not ethereal, as Vir2us's vague definition would have the jury believe. On the contrary, the patents specify that data stores are physical components. *See, e.g.*, '541 patent col. 18:34-36 (“physical components such as a particular CPU and a particular data store”); '598 patent col. 16:31-42 (explaining that the system separates users' data stores “at a physical level”). Moreover, storage

may be implemented as a single **physical** device, as a combination of two or more **physical** devices, or as one or portions of one or more **physical** devices. It may for example be any type of magnetic, optical, solid-state, or other memory types as are known in the art or may be developed.

'541 patent col. 48:47-51 (emphasis added). Thus, although data stores can be some portion of one or more devices, those devices are nevertheless physical. *Id.*

The Vir2us patents also emphasize that the data stores of the alleged inventions are separate from each other. This is illustrated in, for example, Figures 1 and 2 of the '541 patent.

Figure 1 states that it shows the “Prior Art,” and has only one data store (element number 1502-1). Figure 2, on the other hand, shows the multiple **separate** data stores (element numbers 1502-1, 1502-2 to 1502-N) of the alleged invention. As the patent explains,

It will be appreciated that the **separate** logical storage elements 1502-1, 1502-2, ... , 1502-N may be configured or portioned on a single physical device or within or on any combination of physical devices and that even for a single logical storage device 1502-2 (for example) multiple different physical devices may be utilized to obtain the desired or required ... operating characteristics. For example in one embodiment for a notebook computer, some of data store 1502 are implemented as logical partitions of a single physical hard disk drive.

Col. 17:16-35. The ‘598 patent illustrates the separate data stores in another way (referring to Figure 5):

Each user or group of users may use only a predetermined one (or more) of the data stores 52. Thus, before using the computer 5, a user sets the switch 5Z to the predetermined position enabling the data store 52 corresponding to that user to communicate via the controller 57. In this way, **a first user’s data is separated from a second user’s data on the same computer.** The computer 5 more effectively separates users' data by **enforcing security at a physical level rather than at the logical (software-enforced) level typical of multi-user operating systems.**

‘598 patent col. 16:13-22 (emphasis added); *see also* col. 18:20-24 (“Thus, if a hacker or virus were to enter a data storage device that was connected to a network, said hacker or virus could only access one of the data storage device(s) because the other data storage devices were ‘**separated**’ by the Switching System.”).

Invincea’s proposed construction faithfully includes all aspects of the data stores defined in the patents: “a portion of a physical memory device (or devices) separate from other stores or storages.” Vir2us’s proposed construction, on the other hand, is vague, imprecise, and unhelpful to the jury. The Court should, therefore, adopt Invincea’s construction of “data store” / “storage” / “data storage.”

3. **“switching system for selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control”**

Claims	Claim Term	Invincea’s Proposed Construction	Vir2us’s Proposed Construction
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Claims	Claim Term	Invincea's Proposed Construction	Vir2us's Proposed Construction
'541 claims 1-2, 8	"switching system for selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control"	<p>Function: selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control</p> <p>Corresponding Structure:</p> <p>(1) system switching controller unit 2138, switch configuration information storage 2139, first switch 2124, second switch 2125; or</p> <p>(2) system switching controller unit 2138, switch configuration information storage 2139, switch 2164, switch 2165; or</p> <p>(3) system switching controller unit 2138, switch configuration information storage 2139, switch 2174, switch 2175; or</p> <p>(4) system switching controller unit 2138, switch configuration information storage 2139, switch 2141, switch 2145.</p>	<p>No construction necessary / Plain and ordinary meaning.</p> <p>To the extent the Court finds a construction is necessary, Vir2us proposes the following:</p> <p>Software or hardware to selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control</p>

The parties fundamentally dispute whether the claim phrase "switching system for selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control" of claims 1-2 and 8 of the '541 patent is a means-plus-function claim element governed by 35 U.S.C. § 112, ¶ 6. Because the claim language is functional in nature and fails to convey to one of ordinary skill in the art sufficiently definite meaning as the name for structure, it is subject to § 112, paragraph 6 as a means-plus-function claim element. *Williamson*, 792 F.3d at 1349. Accordingly, the claim construction is limited to the corresponding structures described in the specification for performing the claimed function. *Id.* 1351-52.

a. The "switching system" limitation should be construed as a means-plus-function limitation

The "switching system" of claims 1, 2, and 8 of the '541 patent should be construed under § 112, ¶ 6, which provides:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claims shall be construed to cover the corresponding

structure, material, or acts described in the specification or equivalents thereof.

35 U.S.C. § 112, ¶ 6.

Although means-plus-function claiming is typically signified by the use of the phrase “means for” in the claim language, the use such language is not determinative. *Williamson*, 792 F.3d at 1349. In the absence of this language, a rebuttable presumption arises which may be overcome if it is demonstrated “that the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” *Id.* (citing *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)). The Federal Circuit in *Williamson*, sitting *en banc*, overruled a line of cases dating back to 2004 which characterized this rebuttable presumption as strong. 792 F.3d at 1348-49. The *Williamson* Court found that the characterization had “the inappropriate practical effect of placing a thumb on what should otherwise be a balanced analytical scale.” *Id.* at 1349. In overruling this line of cases, the Court held that the absence of the “means for” claim language does not result in the requirement of a “heightened evidentiary showing.” *Id.*

Initially, the claim phrase “switching system for selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control” is written “in a format consistent with traditional means-plus-function claim limitations.” *Id.* at 1350. However, it replaces the terms “means” with the term “system” and recites a function performed by the “switching system.” *See id.* The term “system” does not indicate any particular structure. Declaration of Dr. Aviel D. Rubin (“Rubin Decl.”) ¶ 34. It is both synonymous and interchangeable with the term “means.” Instead, “it sets forth [a] black box recitation of structure.” *Id.* Courts around the country have consistently refused to find structure in similar “nonce” words such as “mechanism,” “element,” and “device.” *Id.*; *MIT*, 462 F.3d at 1354. Indeed, at least one court has specifically held the “system” term used in this claim limitation to be a nonce word. *JOAO Control and Monitoring Systems, LLC v. Protect America, Inc.*, Case No. 1:14-cv-134, 2015 WL 4937464, at *5 (W.D. Tex. Aug. 18, 2015). Accordingly, the word “system” does not provide any indication of structure.

Nor is structure imparted by modifying the word “system” with the word “switching.” Switching is a verb that describes only the function to be achieved, but does not imply any particular structure to the skilled artisan. Rubin Decl. ¶¶ 35-36. Further, the term “switching system” is not a term of art, such that the skilled artisan could connote its structure based solely on the name. Rubin Decl. ¶¶ 35-36. Nor is “switching system” defined in the written description. At best, the patent explains that “[a]s with other switches and switching systems described herein, the switching can be any one, plurality, or multiplicity, of mechanical, electrical, electronic, transistor, diode, microprocessor, digital or analog, that accomplish the desired switching.” ‘541 patent col. 16:58:62.

But this description only provides the nature of the switching that can be accomplished, not the structure used to accomplish the task. Although the written description provides an explanation for the structure of an individual switch, it provides no structural detail for the claimed “switching system for selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control.” Accordingly, the claim term does not recite sufficiently definite structure and, thus, should be construed under § 112, ¶ 6.

b. The function and corresponding structure of the “switching system”

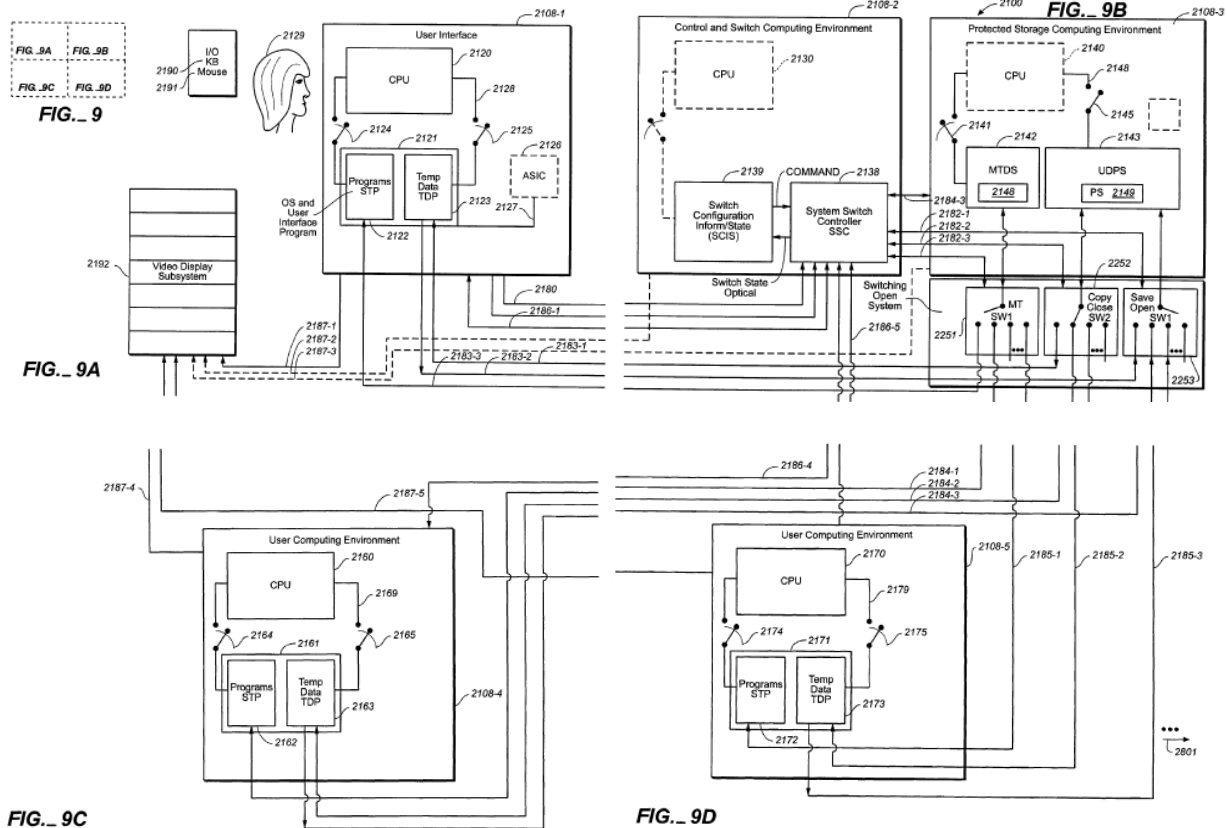
Determining the claim construction of a claim term under § 112, ¶ 6 is a two step process. *Williamson*, 792 F.3d at 1351. The Court first must identify the claimed function. *Id.* Then, the Court must identify the corresponding structures in the specification that perform that function. *Id.*

Here, the claimed function for the “switching system” is “selectably and independently coupling and decoupling the processing logic device with the first storage and/or the second storage under automated control.” ‘541 patent col. claim 1. Although the specification addresses many different switching mechanisms between a processing logic device and data stores, most of those descriptions only address the ability to select between the data stores to

couple or decouple and fail to address the notion of independently coupling and decoupling. *See, e.g., id.* at 18:42-49 (“The switchable connection or couple may involve any of a variety of switching schemes.”) The embodiment of Figure 9 is the only instance in which the specification expressly addresses the coupling or decoupling of the process logic device and data stores as both selectable and independent.

To explain, the system of Figure 9 (which is comprised of FIGS. 9A-9D, reproduced below) comprises several user interfaces and user computing environments. *See id.* at 29:48-57; Fig. 9 (environments 2108-1, 2108-4, 2108-5). Each of these environments includes a CPU and one or more data stores (e.g., Secondary Template Portion (“STP”) and Temporary Data Store Portion (“TDP”). *Id.* 30:4-11; Fig. 9 (CPU elements 2120, 2160, and 2170, data store elements 2121, 2161, 2171). Also relevant here, the system includes a Control Switch and Computer Environment (“CSCE”, element 2108-2) “for controlling and coordinating the operations of the other computing environments of the system.” *Id.* at 35:53-57; Fig. 9. More precisely, it is the system switch controller (“SSC”) 2138 within the CSCE responsible for processing and sending the relevant control signals based on status and other information stored in a switch configuration information storage 2139. *Id.* at 36:15-28, 40:4-11.

Within each user computing environment, there are switches for coupling or decoupling the CPU to the STP and/or TDP data store(s). *See, e.g., id.* at 30:66-31:2 (In Fig. 9A, “[s]torage 2121 is selectively and switchably coupleable to CPU 2120. In the embodiment of FIG. 9, separate first switch 2124 and second switch 2125 are show [sic] for connecting or disconnecting 2120 to/from STP 2122 and TDP 2123.”); *see also id.* at 29:44-58; Fig. 9. The CSCE controls the selective operation of these switches. *See, e.g., id.* at 39:44-58; Fig. 9. The CSCE can control operations on the switches in each of these environments independently. *Id.* at 35:66-36:7. This switching system is thus able to “selectably and independently coupl[e] and decoupl[e] the processing logic device with the first storage and/or the second storage under automated control.”



Putting these elements together, the switching system for selectably and independently coupling and decoupling, in this embodiment, includes the system switching controller unit 2138, the switch configuration information storage 2139, and the first and second switches in the controlled environments (2124, 2125, 2164, 2165, 2174, 2175, 2141, and 2145). However, unlike the embodiment, the claim is limited to a switching system for coupling or decoupling a single processing logic device with a single set of data stores. Because each controlled environment includes its own processing logic device (i.e., the CPU) and set of data stores, each controlled environment individually must be considered corresponding structure in combination with the controller elements. Therefore, the appropriate corresponding structure is: (1) system switching controller unit 2138, switch configuration information storage 2139, first switch 2124, second switch 2125; or; (2) system switching controller unit 2138, switch configuration information storage 2139, switch 2164, switch 2165; or (3) system switching controller unit 2138, switch configuration information storage 2139, switch 2174, switch 2175; or (4) system

switching controller unit 2138, switch configuration information storage 2139, switch 2141, switch 2145.

4. “dynamically configurable”

Claims	Claim Term	Invincea’s Proposed Construction	Vir2us’s Proposed Construction
‘541 claim 10	“dynamically configurable”	With a configuration that can be altered to utilize certain physical components.	No construction necessary / Plain and ordinary meaning.

The parties dispute the extent that the hardware devices listed in claim 10 (the processing logic devices and data storages) are “dynamically configurable.” Invincea’s proposed construction is taken nearly verbatim from the ‘541 patent specification.

The ‘541 patent’s specification explains that the invention’s computing environments and their components may be dynamically configured to use different physical components. For example, when a physical component fails, a “spare component (such as CPU, memory, storage, video processor, coprocessor, modem, network or Ethernet processor, and the like) can be switched in to replace [the] failed component.” Col. 16:15-37. In particular,

computing environments and components of such computing environments may be modular and **dynamically configured** so that the specific defective component and/or computing environment can be taken out of service ... until the defective component or set of components comprising a computing environment are swapped out for a working part or repaired.

Id. at 5:39-50 (emphasis added). The “switching connection between **physical** components such as a particular CPU and a particular data store (e.g. hard disc drive or solid state memory chip)” further demonstrates that computing environments and their components may be dynamically configured to use different physical components. *Id.* at 18:33-49 (emphasis added). Moreover, the patent specifies that the dynamic switching configurations use a plurality of physical data store components such as hard disk drives, RAM, ROM, and EEPROM. *Id.* at 30:60-65.

The ‘541 patent specification clearly supports Invincea’s construction of “dynamically configurable,” which is not a common or well-understood term. On the other hand, Vir2us provides no alternate construction supported by the ‘541 patent specification. *See Liebel-*

Flarsheim Co. v. Medrad Inc., No. 1:04-CV-607, 2006 WL 335846, at *6 (S.D. Ohio Feb. 14, 2006) (“[A] patentee cannot avoid defining its own claim terms by asserting that its claims have a plain meaning.”) The Court should therefore adopt Invincea’s construction of “dynamically configurable.”

5. “couple,” “decouple,” and variants

Claims	Claim Terms	Invincea’s Proposed Construction	Vir2us’s Proposed Construction
‘541 claims 1-2, 8, 11-12, 16	“couple,” “decouple,” “coupling,” “decoupling,”	“Couple” - associate (association) of two circuits or systems in such a way that power or information may be transferred from one to the other.	No construction necessary / Plain and ordinary meaning.
‘598 claims 62, 66	“coupled,” “coupleable”	“Decouple” - to separate (joined or coupled subsystems) thereby enabling them to exist and operate separately.	

The ‘541 and ‘598 patents do not define the terms “couple,” “decouple,” and their variants, but use them consistently with the meaning of these terms in the art. Rubin Decl. ¶¶ 43-45. In the electrical and computer engineering field, “coupled” and “decoupled” have broad meanings. For example, the standard dictionary prepared by the Institute of Electrical and Electronics Engineers (“IEEE”) defines “coupled” or “coupling” as “[t]he association of two or more circuits or systems in such a way that power or signal information may be transferred from one to another.” Ex. G, IEEE Standard Dictionary of Electrical and Electronics Terms at 229-31 (6th ed. 1996). Similarly, the definition of “decoupled” is “to separate (joined or coupled subsystems) thereby enabling them to exist and operate separately.” *See id.* at 262; Ex. H, McGraw-Hill Dictionary of Scientific and Technical Terms at 529 (5th ed. 1994); Ex. I, Collins English Dictionary at 412 (3rd ed. 1994); *see also* Rubin Decl. ¶ 43. Invincea has adopted those definitions as its proposed constructions.

The ‘541 and ‘598 specifications use the terms “couple,” “coupling,” “coupled,” and “coupleable” to indicate the association of two circuits or systems in such a way that power or information may be transferred from one to the other. For example, the ‘541 patent specification

explains that, with respect to Figure 2, “[t]he computing environments 1508 are or may be **coupled** or selectably **coupleable** to peripherals 1514-1, ... , 1514-N via optional I/O Switch system 1510.” Col. 16:38-41 (emphasis added). Figure 2 is clear that a computing environment includes a physical CPU that attaches to a peripheral through the I/O Switch, thus indicating an association of at least two circuits. Later, the specification identifies a similar example in a switch or switching system that includes “**circuitry ... for coupling ... storage with logic circuitry such as with a CPU.**” Col. 47:51-57 (emphasis added). The patent notes that “coupling may involve any of a variety of switching schemes, *such as ... altering one or more electrical connection[s].*” Col. 18:42-49 (emphasis added).

The ‘598 patent specification follows suit, explaining that a physical switch “opens or closes a predetermined **electrical circuit**” and may “**turn on or off the power supply** to a device to be switched.” ‘598 patent col. 7:16-20 (emphasis added). Further, “[t]he data store switch system includes the functionality of a general switch system, where the source may represents [sic] a data store and the destination may represent a computing environment. The **general configuration may be used to identify which data stores are coupled with which computing environments.**” Col. 73:48-53 (emphasis added). All of these examples indicate an association of at least two circuits or systems to transfer power or information from one to the other. Rubin Decl. ¶ 44.

The patent specifications use the terms “decouple” and “decoupling” to indicate separating coupled devices. For example, switches and switching elements are used to “**decouple the signals and data of interest between the storage 2321 and the logic means**” and may include circuitry for “**decoupling storage with logic circuitry such as with a CPU.**” ‘541 patent col. 47:51-57 (emphasis added). Figure 11 of the ‘541 patent emphasizes this point by illustrating circuit switches that allow the physical separation of the “storage” and “processor/CPU/ASIC” that both continue to exist and operate after separation.

Invincea’s proposed constructions are entirely consistent with, and properly supported by, this extrinsic evidence. *Phillips*, 415 F.3d at 1318, (dictionaries are “among the many tools that

can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention”).

Invincea’s constructions are supported by the intrinsic and extrinsic evidence, while Vir2us seeks to avoid construing its own term. *See Liebel-Flarsheim*, 2006 WL 335846, at *6. The Court should therefore adopt Invincea’s construction of “couple,” “decouple,” and their variants.

B. Terms of the ‘598 Patent

1. “data store switch”

Claims	Claim Term	Invincea’s Proposed Construction	Vir2us’s Proposed Construction
‘598 claim 62	“data store switch”	A physical device for connecting or disconnecting a data store.	No construction necessary / Plain and ordinary meaning. To the extent the Court finds a construction is necessary, Vir2us proposes the following: Software or hardware that controls access to a data store.

As with their disputes about whether a “processing logic device” and “microprocessor” can be software, and whether “data storage” must be implemented on physical devices, the parties dispute whether the switches between these physical components must be hardware.

The ‘598 patent specification plainly teaches that a data store switch is a physical device (*i.e.*, hardware). For example, the patent notes that Figure 2 “is a *schematic* [diagram] of a data-store switch” that is part of the invention. ‘598 patent col. 2:38-39 (emphasis added). The schematic diagram in Figure 2 shows various voltages, electrical grounding ports, resistors, connection ports, optical isolators (“optoisos”), an AD cable, and a 6 volt lithium battery. Those are components that are only present in *physical* devices—not software. Rubin Decl. ¶¶ 64. Figure 1 of the ‘598 patent further illustrates this point, where physical “switches 13, 19, the controller 1A, power supply 1B, output device 1C and input device 1D ... *form a data-store switch* 1Z.” Col. 6:9-12 (emphasis added). Likewise, the patent specifies that the data store

switch is intended to “*electrically* couple” to the data stores. Col. 14:21-26. Even an internal computer bus may electrically couple a power supply “*in or through*” a data store switch. *Id.* Thus, the data store switch that the ‘598 patent envisions is a physical device. Vir2us’s claim that a data store switch is somehow software belies the information set forth throughout the specification. The Court should therefore adopt Invincea’s construction.

C. Terms of the ‘422 Patent

1. “virtual browsing environment”

Claims	Claim Term	Invincea’s Proposed Construction	Vir2us’s Proposed Construction
‘422 patent, claims 1-6, 9-10, 20	“virtual browsing environment”	A virtual execution environment for isolating the execution of any type of application	A virtual execution environment specifically for a web browser

The parties agree that the construction of “virtual browsing environment” (“VBE”) should be “a virtual execution environment,” but disagree on the type of applications that can execute in a VBE. This term is explicitly defined in the ‘422 patent specification. Col. 18:4-5. The inventors emphasized that a VBE “**may be used to isolate the execution of any type of application.**” *Id.* As they explain in the ‘422 patent,

[i]t should be understood that although embodiments of the invention have been described with respect to a browser application 304, **the embodiments may be used with other types of applications. In particular, the VBEs 208 may be used to isolate the execution of any type of application.** For example, a separate VBE 208 may be used to execute **any application** downloaded from another computer (e.g., over the Internet), **any application** that includes an invalid or unverifiable certificate, **any application** executed on a public computer, **any user-initiated application**, or combinations thereof.

Col. 18:1-11 (emphasis added). Invincea’s definition adopts the explicit language set out in the specification.

Plaintiff’s proposed construction, on the other hand, inappropriately seeks to limit a VBE to be “specifically for a web browser.” In its pre-briefing disclosures, Plaintiff identified no support for its limited construction. Indeed, Plaintiff’s construction not only contradicts the explicit definition quoted above, but also conflicts with other teachings of the patent, including

that “in **some** embodiments only the browser application may be executed within the virtual browsing environment.” Col. 2:4-8 (emphasis added); *see also* col. 13:37-39. Since only “some embodiments” restrict the VBE to executing a web browser, Vir2us’s construction excludes the other embodiments that may be “used to isolate the execution of any type of application.” An interpretation that would exclude an embodiment disclosed in the specification “is rarely, if ever, correct.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

The Court should there reject Vir2us’s construction and adopt Invincea’s construction of virtual browsing environment: “a virtual execution environment for isolating the execution of any type of application.”

2. “website address”

Claims	Claim Term	Invincea’s Proposed Construction	Vir2us’s Proposed Construction
’422 claims 1, 20	“website address”	Information used to identify a server hosting a website.	No construction necessary / Plain and ordinary meaning.

Although the ’422 patent specification does not use the phrase “website address,” it explains that “the browser helper application 306 may record websites accessed by the browser application 304.” ’422 patent col. 6:49-51. One of ordinary skill would understand that this recorded website would reflect information used to identify a server hosting a website, such as a Uniform Resource Locator (“URL”) (*e.g.*, www.cnn.com) or an IP address. Rubin Decl. ¶ 38.

The intrinsic record supports this understanding. In particular, the specification indicates that a URL could be used to identify a website’s server, noting that “a user may specify a desired website in various ways, such as by typing a URL in an address line of the browser application 304.” *Id.* 10:58-61. Further, the provisional application to which the ’422 patent claims priority, describes a methodology for providing a secure URL, utilizing an IP address as an identifier of the host website. Ex. J at 6 (explaining that “the rewriter returns the URL <http://127.0.0.1/redirect/message.html>”); Rubin Decl. ¶ 30. Similarly, the specification incorporates by reference a whitepaper entitled “Efficiently Tracking Application Interactions

using Lightweight virtualization” by Yih Huang, et al. (“Huang”). ‘422 patent col. 5:23-29. Huang also identifies an IP address as the website address for cnn.com. Ex. K at 3 (“[W]e create a socket to connect to 64.236.16.20 on port 80 (one of the IP addresses of cnn.com).”).

Although this meaning is plain to one of ordinary skill in the art, a jury may not be aware that multiple forms of addresses can be used to access a website. To avoid confusion, the phrase “website address” should be construed as “information used to identify a server hosting a website.”

3. “an indication of an operation of at least one operating system”

Claims	Claim Term	Invincea’s Proposed Construction	Vir2us’s Proposed Construction
‘422 claims 1, 20	“an indication of an operation of at least one operating system”	Plain and ordinary meaning	Indefinite as set forth in Vir2us’s Invalidity Contentions.

Vir2us argues in its Preliminary Invalidity Contentions that the term “an indication of an operation of the at least one operating system” is indefinite because, for example, the term is not found in the ‘422 patent’s specification. Pl.’s Inv. Cont., Ex. L at 16. The Federal Circuit, however, has held time and again that a specification “need not describe the claimed subject matter in exactly the same terms as used in the claims; it must simply indicate to persons skilled in the art that as of the [filing] date the applicant had invented what is now claimed.” *All Dental Prodx, LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 779 (Fed. Cir. 2002) (citation omitted). The “failure to define [a] term is, of course, not fatal, for if the meaning of [a] term is fairly inferable from the patent, an express definition is not necessary.” *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1373 (Fed. Cir. 2004). Moreover, “[s]ome latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire.” *In re Skvorecz*, 580 F.3d 1262, 1268-69 (Fed. Cir. 2009) (quoting MPEP § 2173.02). The complete absence of a claim term from a patent’s specification also is not fatal. *Comcast Cable Commc’ns, LLC v. Sprint Commc’ns Co., LP*, 38 F. Supp. 3d 589, 617 (E.D. Pa. 2014). The question in the instant case, therefore, is whether the meaning of “an indication of an operation of at least one operating system” is

reasonably clear from the specification so as to provide sufficient guidance to a person of ordinary skill in the art. *Hartford*, 359 F.3d at 1373.

The ‘422 patent specification provides ample explanation to enable a person of ordinary skill in the art to understand the scope of the term “an indication of an operation of at least one operating system.” Rubin Decl. ¶¶ 27-31. As the specification explains, in one embodiment, when a browser application in a virtual browsing environment (“VBE”) accesses a website, the behavior or operations of the VBE are monitored. ‘422 patent col. 13:1-20. Because the VBE includes its own operating system, the monitoring of the VBE necessarily also includes monitoring of that operating system. *Id.* at 4:37-42. Indeed, the specification notes that such monitored information includes, for example, attempts to execute applications or access memory—operations that are performed by an operating system. Rubin Decl. ¶ 30. The monitoring application then provides information indicating the identified operations to a control application, which may forward the information on to a collection computer. ‘422 patent col. 13:4-7, 14:42-46.

This detailed explanation provides ample explanation to enable one of ordinary skill in the art to understand the scope of the phrase “an indication of an operation of at least one operating system.” Rubin Decl. ¶ 31. Accordingly, the Court should construe the phrase, under its plain and ordinary meaning, as “information indicating actions performed by the operating system.”

D. Indefinite Terms of the ‘541 and ‘598 Patents

1. Terms That Cannot Be Construed Because They Have Missing Words, Typographical Errors, and/or Missing Punctuation That Make Them Unintelligible.

Claims	Claim Term	Invince a’s Position	Vir2us’s Position
‘541 patent claim 1	“may not be coupled or only restrictively coupled to communicate”	Invalid	Not invalid. Vir2us has never disclosed how this term makes any sense or can be construed.

Claims	Claim Term	Invoice a's Position	Vir2us's Position
'541 patent claim 11	"and automatically erased after each processing has occurred independent if the processing completed with error condition or without error condition"	Invalid	Not invalid. Vir2us has never disclosed how this term makes any sense or can be construed.
'598 patent claim 62	"if said correct health then said data store switch remains is not altered"	Invalid	Not invalid. Vir2us has never disclosed how this term makes any sense or can be construed.

If missing words or other typographical errors make it impossible to discern the scope of a claim limitation, the claim is indefinite under 35 U.S.C. § 112 ¶ 2. *See Allen Eng'g*, 299 F.3d at 1348-49. It is not the court's function to rewrite claims to preserve their validity. *Id.* at 1349 (citing *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999)). "[I]t is of no moment that the [error] is obvious: semantic indefiniteness of claims 'is not rendered unobjectionable merely because it *could* have been corrected.'" *Id.* (citing *In re Hammack*, 427 F.2d 1384, 1388 n.5 (CCPA 1970)). Each of these terms contains missing words, missing punctuation, and other typographical errors that make it impossible to discern the scope of the claims.

The errors in '541 patent claim 1 are obvious when viewed in the context of the whole limitation:

the processing logic device **may not be coupled or only restrictively coupled to communicate** known information with the first storage when the processing logic is loaded with a program instruction that may be capable of executing a data item that has untrusted content or that did not originate within a known controlled environment

The bolded language is grammatically incorrect—it is missing words, or punctuation, or both. The phrase could have been intended to be "may not be coupled[,] or [**may be**] only restrictively coupled[,] to communicate known information" or it could have been intended to be "may not be coupled[,] or [**not be**] only restrictively coupled[,] to communicate known information." In fact, the lack of commas makes it impossible to know if the "to communicate" clause applies to the "may not be coupled" clause or only to the "restrictively coupled" clause. Rubin Decl. ¶ 49. "Since it is impossible to discern the scope of such a truncated limitation, claim 1 is indefinite

and thus invalid.” *See Allen Eng’g*, 299 F.3d at 1348-49.

The errors in ‘541 patent claim 11 are similarly obvious when viewed in the context of the whole claim:

11. An information appliance as in claim 8, wherein the second storage is configured to perform as a temporary storage during a processing operation when it is coupled with the processing logic device **and automatically erased after each processing has occurred independent if the processing completed with error condition or without error condition**, where an error condition may include detection of a virus or other malicious code execution.

The bolded language shows errors in grammar and syntax that make this phrase indecipherable. There are obviously words missing after “each processing”: it could have been intended to be “automatically erased after each processing [logic coupling] has occurred” or it could have been intended to be “automatically erased after each processing [operation] has occurred.” Rubin Decl. ¶ 51. It is also unclear what needs to be “independent”: “processing [logic coupling],” “processing [operation],” “error condition,” “temporary storage,” or some other noun. Rubin Decl. ¶ 52. There is also a conditional “if” phrase that lacks a result. Rubin Decl. ¶ 53. Simply put, this phrase cannot be construed without completely rewriting it. Since that would be inappropriate, *see Allen Eng’g*, 299 F.3d at 1349, the Court should conclude that it is indefinite and invalid.

Finally, the errors in ‘598 patent claim 62 are obvious when viewed in the context of the whole limitation:

if said corruption health is determined then said data store switch is operative to decouple said accessible data store and said selected processing environment, and communicatively couple a second accessible data store and said selected processing environment, **if said correct health then said data store switch remains is not altered**.

This language, too, is grammatically and syntactically indecipherable. In addition to the nonsensical phrase “remains is not altered,” it is clear that the conditional phrase “if said correct health” was truncated, because it does not, in fact, define a condition that would impact the data store switch. Rubin Decl. ¶ 56. Again, “it is impossible to discern the scope of such a truncated

limitation.” *See Allen Eng’g*, 299 F.3d at 1348-49.

Vir2us has *still* never disclosed how these terms make any sense or can in any way be construed. That fact further demonstrates the impossibility of determining the scope of these claims. The Court should therefore conclude that they are indefinite and invalid.

2. Purely Subjective Phrases for Which the Patents Define No Standard.

Claims	Claim Term	Invincea’s Position	Vir2us’s Position
‘541 patent claims 1, 12	“untrusted content”	Invalid	Not invalid. Vir2us has never disclosed how this term can be construed or has any boundaries.
‘598 patent claim 62	“corruption health”	Invalid	Not invalid. Vir2us has never disclosed how this term can be construed or has any boundaries.
‘598 patent claim 62	“correct health”	Invalid	Not invalid. Vir2us has never disclosed how this term can be construed or has any boundaries.

When a claim uses a term susceptible to subjective interpretations, “[s]ome objective standard must be provided in order to allow the public to determine the scope of the claimed invention.” *Datamize*, 417 F.3d at 1350. For example, when a claim uses a term of degree, the patent’s specification must provide “some standard for measuring that degree” to satisfy the definiteness requirement. *Id.* at 1351 (quoting *Seattle Box*, 731 F.2d at 826). The ‘541 and ‘598 patents use three such terms—“untrusted content,” “corruption health,” and “correct health.”

Untrusted content. Determining whether something is “untrusted” is subjective and variable across a range of degrees. For example, a set of research data could be mildly or highly untrusted due to questions about data collection, interpretation, reporting, or some combination of those and other factors. The claims of the ‘541 patent refer to “untrusted content,” but the patent fails to define any standard for determining when content is “untrusted.” Rubin Decl. ¶¶ 58-59. As a result, these claims are indefinite and fail to “allow the public to determine the scope of the claimed invention.” *Datamize*, 417 F.3d at 1350.

The ‘541 patent claims use “untrusted content” five times, all in the exact same way: “executing a data item that has untrusted content or that did not originate within a known

controlled environment.” Claims 1 and 12. This language only shows that origination is different—it fails to provide an objective standard for being untrusted. The specification parrots this same language in several places (‘541 patent col. 4:2-11), but also refers to “user data having unknown or untrusted content”; “unknown or untrusted data”; and “untrusted code.” *Id.* at 3:45-49; 23:13-14; 44:36. These passages also distinguish unknown content from untrusted content, but again fail to provide an objective standard for being untrusted. Rubin Decl. ¶ 59; *see also* ‘541 patent col. 65:61-64 (“If the file is unknown or untrusted it may be labeled for example ‘untrusted’, whereas if the file was created from within in a pristine environment, the control environment may label the file as ‘trusted’.”); *id.* at 66:22-24 (“untrusted data can be merged with trusted or untrusted data resulting in untrusted data”).

Corruption health. Claim 62 of the ‘598 patent uses the oxymoron “corruption health,” but the patent fails to explain what degree of corruption is necessary before it qualifies as “corruption health.” Rubin Decl. ¶¶ 61-62.

The specification uses the term “corruption health” only when parroting the claim language, but does not otherwise explain the term. The specification does, however, demonstrate that “corruption” and “corrupted” are terms of degree. For example, the specification notes that “[v]arious parts of the [operating system], application software, or any other data on hard drive 1 could then be damaged, deleted, *corrupted*, or destroyed. ... *The corruption* of hard drive 1 *could be so terrible* that the computer could not even ‘boot up.’” ‘541 patent col. 42-47 (emphasis added). Elsewhere, the specification notes that “[u]ser processing within the control computing environment is minimized to *reduce the potential for corruption* of information.” *Id.* at 77:56-57 (emphasis added). The patent never provides a standard for that potential corruption, nor explains how terrible the corruption must be to constitute “corruption health.” Rubin Decl. ¶¶ 61-62. The public is, therefore, left to guess about the scope of these claims. *See Datamize*, 417 F.3d at 1350.

Correct health. The ‘598 patent also fails to explain what is required for the system to have “correct health.” This is rendered even more vague by the fact that the system requires

some (unspecified) level of corruption before qualifying as “corruption health,” and therefore tolerates some (unspecified) level of corruption yet still has “correct health.” The specification again only uses this term when parroting the claim language, and does not otherwise refer to or define when health is “correct.” Here, too, the public cannot know the scope of the claim because the patent does not provide an objective standard for when something has “correct health.” Rubin Decl. ¶ 63.

For these reasons, the Court should hold that the terms “untrusted content,” “corruption health,” and “correct health” are indefinite and, therefore, that claims 1 and 12 of the ‘541 patent and claim 62 of the ‘598 patent are invalid.

V. CONCLUSION

For the reasons set forth above, Invincea respectfully requests that the Court enter an order construing these claim terms in accordance with Invincea’s proposed constructions.

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Respectfully submitted,

By: /s/ Nathan K. Cummings

Nathan K. Cummings (VSB No. 41372)
COOLEY LLP
One Freedom Square
11951 Freedom Drive
Reston, Virginia 20190-5656
Tel.: (703) 456-8000
Fax: (703) 456-8100
Email: ncummings@cooley.com

Robert W. McFarland (VSB No. 24021)
McGuireWoods LLP
101 W. Main Street, Suite 9000
Norfolk, VA 23510
Tel.: (757) 640-3700
Fax: (757) 640-3701
Email: rmcfarland@mcguirewoods.com

*Attorneys for Defendants and Counterclaim
Plaintiffs Invincea, Inc. and Invincea Labs, LLC*

CERTIFICATE OF SERVICE

I hereby certify that on December 23, 2015, I electronically filed the foregoing document, DEFENDANTS INVINCEA, INC. AND INVINCEA LABS, LLC'S OPENING CLAIM CONSTRUCTION BRIEF with the Clerk of the Court using the CM/ECF system which will send notification of such filing to registered parties, including Plaintiff's counsel, listed below:

Stephen E. Noona
Kaufman & Canoles, P.C.
150 W Main St, Suite 2100
Norfolk, VA 23510
Telephone: (757) 624-3239
Facsimile: (757) 624-3169
Email: senoona@kaufcan.com

Henry C. Bunsow (*Pro Hac Vice*)
Brian A.E. Smith (*Pro Hac Vice*)
Cliff Win, Jr. (*Pro Hac Vice*)
BUNSOW, DEMORY, SMITH & ALLISON LLP
351 California Street, Suite 200
San Francisco, CA 941 04
Telephone: (415) 426-4747
Facsimile: (415) 426-4744
Email: hbunsow@bdiplaw.com
Email: bsmith@bdiplaw.com
Email: cwin@bdiplaw.com

Attorneys for Plaintiff and Counterclaim Defendant Vir2us, Inc.

By: /s/ Nathan K. Cummings
Nathan K. Cummings (VSB 41372)
ncummings@cooley.com
COOLEY LLP
One Freedom Square
11951 Freedom Drive
Reston, VA 20190-5656
Telephone: (703) 456-8000
Facsimile: (703) 456-8100

*Attorneys for Defendants and Counterclaim
Plaintiffs Invincea, Inc. and Invincea Labs, LLC*